UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN

MARY ANN MCBRIDE, et al., *Plaintiffs*, v. MICHIGAN DEPARTMENT OF CORRECTIONS, et al., *Defendants*.	Civil Action No. 2:15-cv-11222 Hon. Sean F. Cox Mag. David R. Grand

EXHIBIT BB

Expert Report of Ray Lorenzo Ray (Oct. 28, 2016)

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN

MARY ANN MCBRIDE; BRIAN STANLEY WITTMAN; and RALPH WILLIAMS; on behalf of themselves and all others similarly situated,	)	
Plaintiffs,	)	Case No. 2:15-cv-11222
vs.	)	Hon. Sean F. Cox Mag. David R. Grand
MICHIGAN DEPARTMENT OF CORRECTIONS, et al.,	)	
Defendants.	)	

My opinion as stated in this report is subject to change based on additional information obtained in discovery or other developments in this case, or any future development of telecommunication technologies.

EXPERT REPORT OF RICHARD LORENZO RAY

October 28, 2016

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I. INTRODUCTION

I have been retained by the law firm of Covington & Burling LLP to provide analysis and testify as an independent expert on behalf of the Plaintiffs – Mary Ann McBride, Brian Stanley Wittman, Ralph Williams and potentially other inmates – concerning effective communication and equal access for the deaf and hard-of-hearing while incarcerated by the State of Michigan Department of Corrections (hereinafter "MDOC").

I have been asked to provide my expert opinion on (1) whether MDOC provides appropriate accommodations for the deaf and hard-of-hearing inmates in MDOC's custody, including Plaintiffs, (2) the means by which MDOC could provide appropriate accommodations for the deaf and hard-of-hearing inmates in its custody, (3) and whether implementation of such means is feasible, practical, cost-effective, and secure.

The opinions I have formed are introduced in Section IV below and addressed in more detail in Section VI. In forming my opinions, I considered facts disclosed in interrogatory responses, document productions, and depositions in this litigation that relate to the deaf and hard-of-hearing inmates in MDOC's custody and my knowledge and experience regarding reasonable accommodations for the deaf and hard-of-hearing to ensure effective communication and equal access to programs and services.

In doing so, I have concluded that MDOC has failed to provide Plaintiffs and all other deaf and hard-of-hearing inmates in the custody of MDOC with the means to effectively communicate with individuals both inside and outside of MDOC, to have an equal opportunity to participate in programs, services, and activities, and to receive announcements, including emergency announcements, in MDOC and its facilities. Further, I determined that MDOC could have provided such means in a reasonable, cost-effective, and secure manner.

I expect to be called to provide expert testimony at trial regarding the opinions I formed on the issues discussed in this report. This report, including the exhibits and attachments, summarizes my opinions as of this time. I reserve the right to supplement this report to address any issues raised by Defendants' experts or resulting from further discovery—including depositions, interrogatories, document requests, and requests for admission—relating to any of the opinions disclosed herein. Additionally, if any information absent from the record is newly disclosed in any expert report(s) from Defendants, I reserve the right to supplement my analysis based on such information.

II. QUALIFICATIONS, PREVIOUS TESTIMONY, AND COMPENSATION

A. Qualifications

I have been employed by the City of Los Angeles Department on Disability for the past 23 years to assess, monitor, and ensure the city's compliance with the Americans with Disabilities Act of 1990 (hereinafter "ADA"), the Rehabilitation Act of 1973 (hereinafter "the Rehabilitation Act"), and other applicable federal, state, and local disability laws. Currently, I am the ADA Technology Access Coordinator. Prior to that, I was the Deputy ADA Compliance

Officer and ADA Compliance Officer. In these capacities, I have advised the city, including its law enforcement agencies, on accommodations in compliance with applicable disability law; provided technological and technical assistance to city departments to improve access to and communication with the deaf and hard-of-hearing; and coordinated access to city facilities, programs, services and activities for deaf and hard-of-hearing individuals. Having held these positions, I am knowledgeable about the requirements of the ADA, the Rehabilitation Act, and other disability laws, and reasonable accommodations under those laws. Through my employment I am also well-versed in various technologies and methods for improving communication and access for the deaf and hard-of-hearing.

As an example of my experience, I advised and oversaw the implementation of a system permitting access to 9-1-1 emergency services for individuals with disabilities, among other telecommunications systems. Additionally, I am currently assisting in the implementation of a new telecommunications system designed to accommodate deaf individuals at the Los Angeles Police Department ("LAPD") Metropolitan Detention Center and at all city police stations' public counters, booking, housing, medical, and health care areas. The system includes (1) Video Remote Interpreting ("VRI") services, (2) public access videophones, and (3) a visual notification system. Additional examples of my job responsibilities include:

- Assisting city departments in obtaining and providing communication accommodations and auxiliary services such as telephone access, Teletypewriter for the Deaf (hereinafter "TTY"), videophones, text telephones, public TTY-equipped payphones, sign language interpreter services, computer aide transcriptions, assistive listening systems, videotext display, note-takers, captioning and real-captioning services as well as any other effective communication system to allow individuals who are deaf, deaf-blind, hard-of-hearing and individuals who have speech disabilities access to city programs and services;
- Providing training to more than 50,000 city employees for over twenty-four years;
- Providing technical assistance and in-service training to Detention Officers and Law Enforcement Officers at Police Academy as well as providing roll call training at Police Headquarters, its twenty-two Community Police Stations, and Detention Centers;
- Evaluating, analyzing, and providing recommendations to the LAPD on various policy issues, including procedures for obtaining sign language interpreters in compliance with ADA Title II and Rehabilitation Act of 1973;
- Providing recommendations to the Los Angeles Police Commission's Professional Advisory Committee and its subcommittees, which include, *inter alia*, the Language-Culture Task Force and Diversity Training Redesign Committee.
- Provide recommendations to the Los Angeles Fire Department Community Emergency Response Team and the Mayor's Crisis Response Team regarding the interaction with individuals with disabilities as well as individuals who are deaf, deaf-blind, and hard-of-hearing;
- Providing assistance and support to city, state, and local entities during natural disasters and crises through emerging telecommunications technologies including videophone and current state-of-the-art systems as well as the latest technologies available for effective communications and services to meet the needs of people with disabilities before, during, and after emergencies (these entities include, *inter alia*, the Emergency Management Department, the LAPD, and Los Angeles World Airports);

- Conducting research on text messaging system to interface with the 9-1-1 system for all levels of government to provide direct access to 9-1-1 emergency services;
- Researching, updating, and maintaining emerging telecommunication technology for city programs and facilities (these programs and facilities include, *inter alia*, 9-1-1 and 3-1-1 services, police stations, libraries, and airports); and
- Developing ADA training programs for ADA Coordinators in all city departments. These trainings include instruction on ADA terminology, equipment utilization, and ensuring that all coordinators are aware of current law and emerging technologies.

For additional information on my job responsibilities and past employment experience, please see **Exhibit A** for my complete curriculum vitae.

In addition to my job responsibilities, I am the current co-chair of the National Emergency Number Association Accessibility Committee. I am currently a member of the Federal Communications Commission ("FCC") Task Force on Optimal Public Safety Answering Points ("PSAPs") Architecture and Disability Advisory Committee and the California Commission on Disability Access Education and Outreach Committee. In the past, I have served as a co-chair of the FCC's Emergency Access Advisory Committee ("EAAC") and as president of the California Association of the Deaf. I have also served as a member of the National Advisory Board of Preparedness and Emergency Response Research Center, the University of Berkeley and California Public Utilities Commission Equipment Program Advisory Committee, Deaf and Disabled Telecommunications Programs Administrative Committee, TDD Placement Interim Committees, the Los Angeles County Metropolitan Transportation Authority, Service Authority for Freeway Emergency Hearing and Speech Impaired Task Force, the County of Los Angeles Commission on Human Relations, and the Media Image Coalition.

I have made several presentations to various federal agencies. For example, I have given a presentation on "Five Years of ADA Implementation: 9-1-1 Emergency Access for Deaf and Hard of Hearing" to the Federal Emergency Management Agency. I have also presented several times for the National Emergency Number Association on emerging technologies, emergency notification, and emergency communications as they relate to the deaf and hard-of-hearing. Among other organizations, I have also presented to the FCC on emergency calling for the deaf and hard-of-hearing and to the Centers for Disease Control and Prevention on policies and regulations on accessibility to programs and services before, during, and after disasters.

For my contributions to my field, I have received various awards and recognitions. A list of these honors is provided in my curriculum vitae, attached hereto as **Exhibit A**.

In 2000, I earned a Disability Rights Masters Certificate from Loyola Law School in Los Angeles, California.

I was born with severe hearing loss and wore hearing aids during childhood and into adult life. In 2000, I lost my remaining residual hearing and became completely deaf. Since April 2001, I have utilized a Cochlear Implant for environmental sound recognition.

B. Previous Testimony

I have been engaged as an expert consultant and witness in other cases, as disclosed on my curriculum vitae at **Exhibit A**. In *Bryant v. United States Bureau of Prisons*, No. 06704-016 for instance, I testified on general access to prison programs, services, and activities as well as effective communications utilizing current technologies for deaf and hard-of-hearing inmates. I also testified for the *Berke v. United States Bureau of Prison*, No. 1:12-cv-01347-ESH (D.D.C) case on effective communications for deaf and hard-of-hearing inmates. In addition, I conducted research and provided expert reports in five additional court cases involving state departments of rehabilitation and correction regarding telecommunication technology in prison systems for inmates who are deaf, deaf-blind, and hard-of-hearing. The five additional cases include: *Bearden v. Clark County, State of Washington*, No. 3:14-cv-05318-BHS (W.D. Wash.); *Adams v. Kentucky Department of Correction*, No. 3:14-cv-00001-GFVT (E.D. Ky.); *William Pierce v. District of Columbia Department of Corrections*, No. 1:13-cv-00134- JEB (D.D.C); *Heyer v. U.S. Bureau of Prisons*, No. 5:11-CT-3118-D (E.D.N.C.); and *Smith v. Idaho Department of Correction*, No. CV-12-00030-BLW (D. Idaho).

C. Compensation

I have been retained by Covington & Burling, LLP in this case at the rate of $150.00 per hour. My compensation is not dependent on the outcome of this case or the opinions and conclusions I offer.

III. MATERIALS CONSIDERED

I have been provided with, reviewed, and used the materials listed in **Exhibit B** in developing my report. Additionally, I have reviewed and I am relying on the materials cited in my report.

IV. SUMMARY OF OPINIONS

It is my opinion, based on my experience, my understanding of reasonable accommodations under relevant laws, and analysis of the factual record and all materials cited in my report, that MDOC has failed to provide Plaintiffs, as well as all other deaf and hard-of-hearing inmates in the custody of MDOC, with the means to communicate effectively with individuals both inside and outside of MDOC, to receive important announcements, and to have equal access to jail facilities, programs, services, and activities.

It is important to recognize and defer to the preferences of deaf and hard-of-hearing individuals to ensure their effective communication. It is my opinion that MDOC has failed to do so effectively.

It is further my opinion that MDOC should have provided the following accommodations to ensure effective communication and equal access for Plaintiffs and all deaf and hard-of-hearing individuals in custody: (1) videophone technology; (2) qualified sign language interpreters available in person, or remotely via Video Remote Interpreting ("VRI"), and upon request; (3) Video Relay Service ("VRS"); (4) Captioned Telephone systems; (5)

Communication Access Real-time Translation ("CART") services and/or Assistive Listening Device Systems ("ALDS") (6) in-cell visual alarms and/or wireless notification systems; (7) bed shakers; (8) visual notification systems; and (9) MDOC staff training concerning deaf and hard-of-hearing inmates.

There were and are no insurmountable technological, cost, or security impediments to implementing such accommodations at MDOC and its facilities such as Carson City, Robert G. Cotton, Chippewa, Parnall, Saginaw, Women's Huron Valley (WHV), and Woodland Corrections Centers. Indeed, other prison systems and government agencies have already implemented similar telecommunication technologies.[1]

V. SUMMARY INFORMATION ON DEAF AND HARD-OF-HEARING INDIVIDUALS

Hearing loss affects all levels of society, every age, race, education level, and occupation. Some individuals are born deaf and some become deaf later in life. Deafness is caused by a wide range of factors, including but not limited to heredity, illness, disease, accident, medication, violence, and aging. [2]

In most, but not all cases, hearing loss may also cause speech difficulties while deafness almost always does. People who are born deaf have never heard speech sounds. As a result, they often are unable to speak clearly, and many do not speak at all. There are literacy level differences among the deaf community. Further, while some individuals have English literacy skills, many individuals do not have a written form of a language by which to communicate. Also, individuals usually do not have expertise in reading lips. Even for those who can lip-read, numerous factors can inhibit an individual's ability to rely on lip reading. Only approximately 25 percent of words can be visually recognized by an expert lip-reader; the rest is left to guess work.[3]

The majority of deaf individuals in the United States utilize American Sign Language (ASL) as their primary language.[4] ASL has its own structure, syntax, and grammar. Persons who use sign language are very expressive with their hand movements and may also use speech, fingerspelling, writing, body language, and facial expressions. While ASL is not a written English language, it is a visual manual language with its own unique structure, syntax, and grammar. It is based on the movement of the signs, other body movements, and non-manual grammatical markers, which are known as "facial grammar." The setting is established not by

[1] These include, *inter alia*, the Powhatan Correctional Center in Virginia, Vermont's state prison system, Wisconsin's state prison system, all federal government agencies, the U.S. Department of Defense, and portions of the U.S. military.
[2] *Basic Facts About Hearing Loss*, Hearing Loss Association of America, http://www.hearingloss.org/content/basic-facts-about-hearing-loss (last visited Oct. 28, 2016); *Questions and Answers for Health Care Providers*, National Association of the Deaf, http://nad.org/issues/health-care/providers/questions-and-answers (last visited Oct. 28, 2016).
[3] *Questions and Answers for Health Care Providers*, *id*.
[4] *American Sign Language*, National Association of the Deaf, http://www.nad.org/issues/american-sign-language (last visited Oct. 28, 2016).

words, but by visual-based perceptions. Accompanying facial expressions and body language indicate the intensity of emotion.

VI. OPINIONS

Currently, MDOC fails to provide inmates with the means to communicate effectively and gain access to prison programs, services, and activities and does not provide adequate accommodations for deaf and hard-of-hearing inmates. Inmates who are deaf or hard-of-hearing must have the same access to effective communication as do hearing inmates and must have an equal opportunity to participate in and access the benefits of MDOC's services, programs, and activities, including the use of its facilities and services.

A. Access to Communications and Telecommunication Technologies

Based on my 24 years of experience working with state and local governments, I strongly recommend that MDOC evaluate its programs and services for effective communications access for deaf and hard-of-hearing inmates. In my opinion, MDOC must: a) assess, evaluate, analyze, and make reasonable modifications in policies, practices, and procedures; b) remove barriers to access; and c) provide auxiliary aids and services to ensure effective communication for all inmates who are deaf, deaf-blind, and hard-of-hearing.

Auxiliary aids and services that provide effective communication and equal access are widely available and easy to implement. Many are already being used in prisons and correctional centers across the United States.

a. Voice Communications

Telephone communication is one of the most important forms of communication in society today.

In addition, telecommunication technologies help people to connect directly to each other even when in distant locations. The increasing methods for establishing communication connections instantly are digital, broadband, and Voice over Internet Protocol (VoIP). Since deaf and hard-of-hearing individuals cannot communicate telephonically, alternative modes of telecommunication technology have been developed over time. With the rapid evolution of technology, the communication choices for persons with disabilities are changing. The expansion of services such as captioned telephone services, Internet Protocol Relay Services, Speech-to-Speech Relay Services, as well as Video Relay Services and devices including personal computers, laptops, mobile phones, and tablets offer more mainstream possibilities.

Due to advancements in technology, telephone devices have evolved with new services and capabilities. The development of digital data communication methods, such as the protocols used for the internet, have made it possible to digitize voice and transmit it as real-time data across computer networks, giving rise to the field of Internet Protocol ("IP") telephony that is rapidly replacing traditional telephone network infrastructure. Since 2006, many VoIP

companies, such as Vonage Business, Nextiva, RingCentral, and JIVE Communications offer services to consumers and businesses.

Technological changes in the industry and expansion of telecommunications now provide people many communication options. Individuals who are deaf and hard-of-hearing, and individuals with a speech disability are also following these trends and are rapidly migrating to more advanced telecommunications methods, both for peer-to-peer and third party telecommunication relay service ("TRS") communications. Internet-based equipment includes, but is not limited to, wireless devices, videophones/videocams, computers, and tablets.

b. Teletypewriter for the Deaf ("TTY")

TTY is a 60-year-old technology that enables remote communications between deaf individuals and between deaf and hearing individuals. In a conversation between two deaf individuals, both parties type and read responses using the teletypewriter device, and their typed conversation is transmitted back and forth across the standard telephone network. In a conversation between a deaf individual and a hearing individual, the deaf party uses the TTY while the hearing party uses a standard telephone. An operator then dictates the deaf individual's typed messages to the hearing party and types the hearing individual's spoken messages to the deaf party.[5] To utilize a TTY a deaf individual must have access to a teletypewriter device. Thus, in order for a deaf individual to communicate with another deaf individual, both individuals must have a TTY.

TTYs offer limited effectiveness compared to sign language translation and the other auxiliary aids and services.[6] Most fundamentally, a TTY's capacity to facilitate communication is completely dependent on deaf users' often limited reading and writing skills. In addition, most deaf individuals no longer use TTY devices (relying instead on videophones) and, as a result, deaf inmates who can only access TTYs are often unable to contact deaf friends and family members with the device. According to an FCC report, TTY use has declined by 10% per year. Of all operator-assisted calls involving deaf individuals, the FCC estimates that today only 12% are TTY calls. The majority (75%) are video-based calls.[7]

Whereas an average typing rate is 40 words per minute and a professional typist can type as many as 80-100 words per minute, in the U.S. most TTYs use a communication code that is limited to transmitting text over telephone lines between the rate 30[8] to 60 words per minute.[9] Further, TTYs do not have controllable upper and lower case characters. All outgoing text appears in lower case, while all incoming text appears in upper case. They also do not offer

[5] TTY is not the only communication device for the deaf that utilizes operators. Video-based services discussed later in this report also utilize operators.
[6] Gunnar Hellström, *EAAC TTY Transition*, FCC (Sept. 14, 2012), https://apps.fcc.gov/edocs_public/attachmatch/DOC-316316A1.pdf.
[7] *Emergency Access Advisory Committee (EAAC) Report on TTY Transition*, FCC EAAC, https://apps.fcc.gov/edocs_public/attachmatch/DOC-319386A1.pdf (March 2013) [hereinafter FCC EAAC Report on TTY Transition].
[8] *Id.*
[9] TRS Rules, 47 C.F.R. §§ 64.601-64.606, 64.611, & 64.613.

special characters such as "@" "&", "*", "%", etc.[10] Consequently, a TTY conversation takes much longer than a signed conversation and longer than the average, real-time typed conversation.[11] Due to TTY equipment limitations, it transmits tones at the rate of 45 characters per minute.

Hence, TTYs do not have high-speed transmission capability; additional time is needed when using a TTY due to its equipment limitation as well as user limited typing skill. The maximum transmission rate is about six characters per second, which is slower than many people type;[12] therefore, users must also be allowed sufficient time to use the device.[13]

Moreover, although MDOC maintains certain TTYs, MDOC's Paul Slagter testified that some of MDOC's TTYs are not used and that they have been left on the shelf.[14] And when TTYs are in operation, at least some deaf inmates are unable to use them, for instance due to inability to hear the instructions and difficulty using the debit card menu system.[15] According to the documents produced in this case related to TTYs, most inmates who are deaf and hard-of-hearing cannot use traditional telephones to communicate with individuals outside of the correctional center. Ms. Mary Ann McBride, for example, is unable to communicate with her deaf friends and her two brothers as well as relatives outside of her correctional center.[16] Ms. McBride has never been able to place an outgoing phone call through the use of the device. Also, it is very difficult for Mr. Wittman to communicate through a traditional telephone.[17] And Mr. Williams cannot use a traditional telephone to communicate with his family and friends due to his deafness.[18]

Additionally, AT&T Michigan discontinued the traditional TRS service provided to these carriers throughout the state of Michigan, causing interruption of service for 6 weeks when MDOC discovered 60-some calls were missing. MDOC appeared not to be aware of the termination of traditional relay services until long after. Consequently, inmates did not have any form of telecommunication system to be able to communicate with their family members or lawyers whereas inmates who can hear were able to use telephones from May 26, 2015 until relay service was restored on July 14, 2015.[19]

The provision of TTYs to Plaintiffs and other deaf and hard-of-hearing inmates does not provide them with the means to effectively communicate with deaf, hard-of-hearing, and hearing

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[10] *Proposed procedures for the TTY as a text terminal in legacy 9-1-1 PSAPs without IP connection*, FCC EAAC (June 14, 2013), https://apps.fcc.gov/edocs_public/attachmatch/DOC-321704A1.pdf.
[11] *TTY Overview*, Massachusetts Executive Office of Health and Human Services, http://www.mass.gov/eohhs/gov/departments/mcdhh/programs/hearing-dogs/tty-overview.html (last visited Oct. 28, 2016).
[12] FCC EAAC Report on TTY Transition, *supra*.
[13] *Rights of Deaf and Hard of Hearing Inmates*," National Association of the Deaf, http://nad.org/issues/justice/jails-and-prisons/rights-deaf-inmates (last visited Oct. 28, 2016).
[14] *See*, *e.g.*, Slagter 30(b)(6) Deposition April 11, 2016, 36:4–36:5 & Individual Deposition Oct. 13, 2016, 118:19-120:4.
[15] *See*, *e.g.*, Slagter 30(b)(6) Deposition. April 11, 2016, 48:9-48:24.
[16] McBride Complaint 15, ¶ 38.
[17] McBride Complaint 15, ¶ 40.
[18] McBride Complaint 15, ¶ 41.
[19] *See*, *e.g.*, Slagter 30(b)(6) Deposition. April 11, 2016, 79:24-85:15.

individuals outside the prison. MDOC needs to replace or supplement these TTY devices with the video-based services described below to provide Plaintiffs and the deaf and hard-of-hearing inmates with remote communications technology comparable to that used by their hearing peers.

c. Analog-to-Digital Telephone Network Transition

The analog telephone line is expensive to maintain, relies on switches and other parts that may no longer be manufactured, and does not always interface well with the newer technologies that still use old copper wires, especially in rural areas. Consequently, it is problematic in many VoIP implementations as most voice digitization and compression codecs are optimized for the representation of the human voice and the proper timing of the modem signals cannot be guaranteed in a connection-less network.

The incompatibility between analog and VoIP network may have an adverse impact on the usage of analog equipment such as TTY; data traveling across a computer network may fail to reach its destination during transmission which is known as a packet loss. This means that one can expect to exceed the one percent character error rate threshold recommended by the FCC when the packet loss rate is only 0.12%, an amount far below what is often regarded as acceptable for voice communication. Voice-optimized packet loss concealment algorithms are *not* able to trick a TTY into "hearing" a TTY tone (data bit) that was not received. If any one of the audio packets containing a TTY tone is lost, the receiving TTY will be unable to decode and display that character properly.[20] There appears to be no effort from TTY manufacturing companies to update TTYs to accommodate VoIP or digital phone systems.

For all of the above reasons, MDOC's provision of limited TTY access to deaf and hard-of-hearing inmates fails to provide them with the means to effectively communicate with deaf, hard-of-hearing, and hearing individuals outside the correctional center. MDOC needs to replace or supplement these TTY devices with the video-based services (described below) to provide deaf and hard-of-hearing inmates with remote communications technology comparable to that used by their hearing peers.

d. Traditional and Internet-based Telecommunications Relay Services

Title IV of the ADA amended the landmark Communications Act of 1934 that requires all telecommunications companies in the United States to take steps to ensure functionally equivalent services for consumers with disabilities, notably individuals who are deaf, deaf-blind, hard-of-hearing and individuals with speech disabilities through the provision of traditional relay services.[21]

A third party TRS is a telephone service that allows persons with hearing or speech disabilities to place and receive telephone calls. TRS is available in all 50 states, the District of

[20] FCC EAAC Report on TTY Transition, *supra*.
[21] Report and Order and Further Notice of Proposed Rulemaking, *In Re Speech-to-Speech and Internet Protocol (IP) Speech-to-Speech Telecommunications Relay Services & In re Telecommunications Relay Services And Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CG Docket Nos. 08-15 & 03-123 (July 19, 2013), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-13-101A1.doc.

Columbia, Puerto Rico, and the U.S. territories for local and/or long distance calls. TRS providers – generally telephone companies – are compensated for the costs of providing TRS from either a state or a federal fund. There is no cost to the TRS user. There are several forms of TRS, depending on the particular needs of the user and the equipment available.

The FCC adopted internet-based TRS, which in 2002 began to include other services which are made over the internet by consumers who use broadband connections: text-to-voice TTY-based TRS, voice carry over, hearing carry over, speech-to-speech relay service, shared on-English language relay services, captioned telephone service, IP captioned telephone service, IP relay service, and video relay service. TRS providers must also offer the service 24 hours a day, seven days a week.

The FCC has ruled that VRS through a TTY relay service is not permitted.[22] Federal VRS handles only video-to-voice calls or voice-to-video relay calls.

On July 1, 2006, the FCC required VRS providers to answer 80 percent of calls within two and a half minutes. On January 1, 2007, the FCC rules changed and VRS providers were required to answer 80 percent of all VRS calls within two minutes.

The FCC has continued to adopt various rules to improve the VRS service. One of the recent rulings that the FCC issued requires VRS providers to answer (*i.e.*, provide the equivalent of a dial tone) 85 percent of all VRS calls within 30 seconds. The new rulings were commenced on July 1, 2014.

Nevertheless, in some cases, the connection time from the caller to the calling party through internet-based relay varies, and can range from 2 to 5 minutes. The connection time depends on the availability of a video interpreter ("VI") or communication assistant ("CA"). When a call is placed to VRS, the call may be placed in a queue for the next available VI or CA to answer. Once the caller and VI or CA are connected, communication is then established. The VI or CA would then place and connect the call to a calling party. There is also a lag time when utilizing a VI or CA who facilitates communication between the caller and the call recipient as the VI or CA will be slightly behind when relaying to ensure accuracy in dialogue.

TTY calls placed through TRS take quite a bit longer than direct TTY connections because CA has to wait until two or three sentences are read before translating from American Sign Language to standard English for accuracy. The entire message is then relayed to the calling party.[23]

e. Video-Based Services

Deaf individuals are increasingly using video-based communications devices instead of TTYs for phone calls. All of these devices and services are preferable to TTYs due to the fact that they are not reliant on deaf individuals' often limited reading and writing skills.

[22] Federal Video Relay Service, https://www.fedvrs.us/supports/what_is_vrs (last visited Oct. 28, 2016).
[23] *Telecommunications Recommendations*, United States Department of Justice, http://www.justice.gov/crt/508/report/telecom.htm (last visited Oct. 28, 2016).

(a) Videophone

Videophones are telephones with a high-definition video display, capable of simultaneous two-way interactive video and audio for communication between people in real-time using separate internal high-speed bandwidth Internet telecommunication services.

Since 2000, videophones have become widely available at a reasonable cost.[24] In addition, they are particularly useful to individuals who are deaf, deaf-blind, hard-of-hearing or have speech disabilities, who can use them with their natural sign language, which has its own structure, syntax, and grammar. They can use fingerspelling, body language, and facial expressions to indicate the intensity of emotion.

Any deaf individual can apply for a free videophone through a vendor of his or her choice.[25] Deaf users also do not incur per-minute usage costs, which are instead paid for by the FCC's Telecommunications Relay Services Fund. For those not eligible to receive a free videophone, the device ranges in price but typically can be purchased for between $75 and $150. Likewise, the high-speed internet service which powers videophones can generally be procured at the modest cost of approximately $30.00-$50.00 per month per household.

Video communication is popular for immediate communication and the volume of calls has increased to 150 million per year.[26]

Videophones are provided in various major brands and models listed in **Exhibit C**. These include: ZVRS Z-150, Z-170, Z-340, Z4, or Z5; Sorensen nTouch; Cisco IP Video Phone E20; or a desktop computer with built-in webcam or a laptop with a built-in webcam using desktop videoconferencing.

The Defendants should assess suitability of video conferencing equipment such as desktop PCs, laptops, videophones, or other webcam solutions provided by major manufacturers of video conferencing devices. Once the Defendants select an appropriate videophone provider, they need only ensure that MDOC and its facilities have a high-speed internet connection into which the videophone device can connect. Additionally, several options exist to monitor in real time and record videophone use, as described in Section VI.A.e.(a).

(b) Video Relay Services

VRS uses high-speed internet to enable remote communications between deaf and hearing individuals. The deaf individual signs to an intermediary sign language interpreter via video monitor. The interpreter, in turn, relays the deaf person's message to the hearing individual in spoken English and vice versa. In a VRS conversation, the hearing party speaks

[24] In some cases, Video Relay Service Providers offer videophone equipment at no cost to customers.
[25] Application Form for Deaf and Hard of Hearing Individuals for all VRS providers including Sorenson Communications, ZVRS, Purple, Convo, CAAG, and Global are available online.
[26] *See* FCC EAAC Report on TTY Transition, *supra*.

into a standard telephone as he or she normally would. VRS has been widely available in the U.S. since at least the mid-2000s.

VRS is free of charge to all users, deaf or hearing. VRS is not intended for parties in the same physical location (*e.g.*, same room), and VRS interpreters are trained to refuse calls if they conclude the parties are in the same physical location.

Video Relay Service (VRS)

VRS is the only form of remote communication that allows both deaf and hearing individuals to communicate using their preferred method of communication. This is the closest form of communication to a communication between two deaf persons signing over videophone or two hearing persons having a voice-to-voice conversation over the phone. Consequently, Plaintiffs, as well as other similarly-situated deaf and hard-of-hearing inmates, require VRS to be able to contact their hearing associates outside of the correctional center in a manner comparable to hearing inmates contacting hearing associates over a standard telephone. The Defendants' failure to provide Plaintiffs, and other deaf and hard-of-hearing inmates who rely on signing for communication with VRS access denied them effective communication and equal access.

f. Implementation of Video-Based Services

Video technologies are increasingly becoming popular and it is expected that they will establish a common mode of communication for everyone. As a result, it is also likely that individuals will expect to call their families and friends using video technologies.

Based on my experience, there is no significant technological barrier preventing or that would have prevented MDOC's implementation of the above-discussed video-based accommodations. Moreover, any security concerns with these services are either unfounded or easily addressed.

Like other languages, video calls permitted for individuals who communicate using ASL can be translated and conveyed to a monitor through third party language translation services. Like non-English speaking people, if an existing monitor is not able to determine the language, he or she may transfer the call to contracted language services for assistance.

(a) Monitoring, Recording, and Storing of Calls

Based on my experiences, many prisons, correctional centers, and jails may monitor, interrupt, and record hearing inmates' phone calls. MDOC does so in some cases. In the event the prison, correctional center, and jail monitors, interrupts, records, and stores calls, this policy may also apply to inmates utilizing telecommunication technology.

TRS and VRS providers do not keep records of the contents of any conversation to ensure that confidentiality of VRS and TRS users is maintained. However, just as there are companies that record hearing inmates for all of their calls for safety and security, there are also companies that can record VRS and point-to-point calls.

There are various methods for monitoring and recording video-based communications between a deaf inmate and the calling party to ensure functional equivalency.

Below is a description of possible methods including but not limited to monitoring, interrupting and recording deaf inmates' video-based communications to provide effective communication and equal access to deaf inmates without imposing security risks.[27]

(i) Contract Vendors

The Michigan Department of Corrections' vendor for prisoner telephone service is Public Communications Services (PCS), Inc. On April 10, 2013, the DailyDial® prepaid phone service was upgraded to the GTL Advance-Pay® prepaid telephone service.

MDOC may utilize its existing contract with GTL to provide both VRS and point-to-point videophone calls and also can monitor, record, interrupt, or intervene in these video calls.[28] There are several vendors who provide this service and functionality, and those vendors are identified in **Exhibit D**. Six vendors in particular, J-Pay, Securus Technologies, RenovoSoftware, Inc., Televideo and Cisco Systems, Inc., are to be considered and recommended. Their products and applications allow prison, correctional center, or jail management to monitor, record, and interrupt video sessions that are in process. These vendors also help to ensure that attorney-client communications are private with no monitoring, recording, or barge-in capabilities.

Alternatively, prisons and correctional centers can enlist IT vendors to assist in monitoring video-based communications. For example, the Virginia Department of Corrections uses IT contractor Northrop Grumman for this purpose.

(ii) Video Visitation System with Downloadable Videophone App

[27] These methods allow for the recording, storing, monitoring, and interrupting of video-based calls. In order to understand the content of these calls, however, prisons will have to hire someone fluent in ASL on an ongoing or as-needed basis.
[28] See, e.g., Slagter 30(b)(6) Deposition. April 11, 2016, 77:10-78:15.

Some vendors are now providing video visitation systems equipped with a downloadable videophone app for computers, tablets, and smartphones to allow inmates to communicate effectively with family and friends using FCC-administered videophone technology.

(iii) Computer with ZVRS Z-4 and Z-5 Applications

The ZVRS Z-4 and Z-5 computer applications for PCs and Macs[29] also monitor, record, and interrupt incoming and outgoing video communications. The user simply clicks on the red "RECORD A CALL" button to the right of the self-view screen. The button turns blue to indicate recording has commenced. Notably, all callers will be notified that the call is being recorded.

To access all recorded calls using this application, click on the "VIDEO RECORDER" icon. In the Video Recorder window, there are four columns for each recording: Name, Date, Time, and Duration. Copies of selected recording can be saved as MOV (*.mov) files and stored or exported for later review. The recorded call may be paused or played back as desired. See **Exhibit E**.

Attached as **Exhibit F** is a 60-second video clip demonstrating how a video call using any videophone application or equipment can be monitored using the Z-5 application with a Mac or PC. **Exhibits G.1** and **Exhibit G.2** further explain how prison staff can use Z-5 to monitor calls.

(iv) Standalone Videophone Equipped with Video/Audio Line Output

A standalone videophone can connect to a DVD recorder using a standard audio/visual cord to capture and store calls for later review. The DVD recorder cannot interrupt calls, however. DVD-ROM discs can only be read and not edited or erased. Rewritable DVDs (DVD-RW, DVD+RW, and DVD-RAM) can be recorded and erased multiple times.

(v) TV Equipped with an HDMI Input Jack for Videophone

Sorenson nTouch videophones are made up of three separate hardware devices: (1) the Main Unit, (2) the Remote Camera Unit ("RCU"), and (3) the hand-held remote control. The Main Unit connects to the RCU with a USB cable and to a TV set using either a composite video cable or an HDMI cable. A DVD-R can be connected to the main unit using a standard AV cord to record calls for later review. The DVD-R cannot interrupt calls, however.

(vi) Purple Videophone Kiosk

Purple Videophone Kiosk may be housed at the prison's IT infrastructure using laptops, servers, cloud, contracted vendor or other systems for recording and storing all data. It provides

[29] Notably, a prison can also remove all access to web browsers on computers being used for video-based communications to prevent unauthorized use by inmates.

recorded data of point-to-point and both voice and video communication through VRS through its contractor Televideo Network, LLC. See **Exhibit H**.

(vii) Enterprise Tablets

Enterprise tablets with motion sensors are increasingly being sold to prisons and correctional centers for use by inmates to ensure as well as maintain prison's security and protect its network and may utilize Virtual Private Network (VPN) as a new tactic to ease inmates' return to society where technology is taking on an increasing role. The enterprise tablet has a built-in sensor to prevent inmates from moving the tablet in attempt to show the calling party any area inside the prison or correctional center. If the tablet moves, the video will shut down and the screen turns black.

Purple Videophone using Android, an enterprise device with Purple App interface with J-pay system would allow inmates to have access to videophone technology to communicate with family members while the video communication is being monitored, recorded and stored.

g. Status of Implementing Video-Based Services Within the Government

(a) Federal Government

The United States General Services Administration ("GSA") contracted Sprint Relay to provide the federal relay interpreting services, which offers instantaneous video interpreting for one-on-one meetings and appointments with managers, supervisors, peers, co-workers, and customers.[30] Federal employees who are deaf or hard-of-hearing received and utilized videophone technologies which are funded through Computer/Electronic Accommodations program ("CAP"), a federal program to help the federal government make their work and military home environments accessible to people with disabilities. For example, the Department of Defense, Edwards Air Force Base employees received and utilized videophone equipment to use video interpreting services in spring of 2012 as part of a reasonable accommodation under Section 501 of the Rehabilitation Act of 1973.[31]

(b) State Prison Systems

In fall 2010, Plaintiffs Gary Minnis, Larry More, David Richardson, Ronald Roman, Delonte Tinsley, and Wolfjunge Wolfsburger and Virginia Powhatan Correctional Center ("Powhatan") entered into a settlement agreement which provides Powhatan's deaf inmates with access to videophones, VRS, and VRI.[32] See **Exhibit I**. As part of the settlement, the Virginia Department of Corrections also implemented new policies and procedures regarding the use of these devices and TTY. These policies provide for the monitoring, recording, and storing of

[30] Federal Video Relay Service, *supra*.
[31] Darcy Painter, *DOD's CAP videophones brings deaf employees closer to Team Edwards*, Edwards Air Force Base, Oct. 15, 2012, http://www.edwards.af.mil/News/Article-Display/Article/394263/dods-cap-videophones-brings-deaf-employees-closer-to-team-edwards.
[32] Dena Potter, *Virginia Deaf inmates settle lawsuit, are provided videophones Settlement also provides interpreters*, Detroit Legal News, Nov. 19, 2010, http://www.legalnews.com/detroit/795635.

video- and text-based communications with exceptions for attorney-client communications. Since this settlement agreement was reached, the Kentucky, Maryland, Ohio, Oregon, Vermont, Virginia, and Wisconsin state prison systems have granted deaf inmates videophone access as well.[33]

On April 5, 2011, the Texas Court of Appeals for the Third District issued a preliminary injunction ordering the Texas Department of Criminal Justice ("TDCJ") to provide telecommunications access to deaf prisoners via the Texas relay service. The court also ordered TDCJ to "investigate ways to implement the use of videophone technology to accommodate inmates with disabilities."[34]

In addition, the Department of Justice has entered settlement agreements between the United States of America and these entities, requiring implementation of videophones in jails and detention facilities under the Americans with Disabilities Act: Erie County, The Erie County Holding Center and the Erie County Correctional Facility[35]; Pennington County, South Dakota[36]; Merced County, California[37]; and Nueces County, Texas.[38]

Prison systems have also implemented video-based communication systems voluntarily. For instance, during the month of May 2013, the Hall County Sheriff's Office Jail Division in Georgia installed and began using Sorenson nTouch videophone technology to accommodate the communication needs of inmates who are deaf and hard-of-hearing. This also enables inmates at the Hall County Detention Center to take advantage of the latest technology when communicating with family and friends on their visitation list.[39]

(c) TRS, VRS, and the Federal Communications Commission

[33] Letter from Talila A. Lewis, Founder & President, Helping Educate to Advance the Rights of the Deaf, to Marlene H. Dortch, Commission Secretary, FCC (Mar. 25, 2013), available at https://ecfsapi.fcc.gov/file/7022134808.pdf; *Landmark Settlements Reached in Maryland and Kentucky for Deaf Prisoners*, Washington Lawyer's Committee for Civil Rights & Urban Affairs, http://www.washlaw.org/news-a-media/423-deaf-inmates-md-ky-settlement (June 8, 2015).

[34] *Texas Court Orders TDCJ to Provide Hearing Impaired Telecommunications*, Prison Legal News, September 15, 2012, https://www.prisonlegalnews.org/news/2012/sep/15/texas-court-orders-tdcj-to-provide-hearing-impaired-telecommunications/.

[35] Settlement Agreement between the United States of America & Erie County, New York Regarding the Erie County Holding Center & the Erie County Correctional Facility Under the Americans with Disabilities Act, DJ No. 204-53-125 (Dec. 17, 2014), available at http://www.ada.gov/erie_county/erie_county_sa.html.

[36] Settlement Agreement between the United States of America & Pennington County, South Dakota Under the Americans with Disabilities Act ¶ 18, DJ No. 204-69-49 (June 1, 2015), available at http://www.ada.gov/pennington_co/pennington_sa.html.

[37] Settlement Agreement between the United States of America & Merced County, California Under the Americans with Disabilities Act ¶ 22, DJ No. 204-11E-383 (June 23, 2015), available at http://www.ada.gov/merced_co/merced_sa.html.

[38] Settlement Agreement between the United States of America & Nueces County, Texas Under the Americans with Disabilities Act ¶ 22, DJ No. 204-74-348 (Jan. 30, 2015), available at http://www.ada.gov/nueces_co_tx_pca/nueces_co_tx_sa.html.

[39] *Hall County Jail Utilizes New Technology for Hearing Impaired Inmates*, Hall County, Georgia, http://www.hallcounty.org/ArchiveCenter/ViewFile/Item/175 (May 8, 2013).

The FCC has taken several steps to ensure that VRS will continue as a vibrant service. Title IV of the ADA requires the FCC to ensure that: (1) Telecommunications Relay Services (TRS) are available to the greatest extent possible to persons with hearing or speech disabilities;[40] and (2) TRS offers persons with hearing and speech disabilities access to a telephone system that is "functionally equivalent" to voice telephone service.[41] In March 2000, the Commission recognized several new forms of TRS, including VRS.[42]

On November 5, 2015, the FCC released Rules and Order regarding rates for telecommunications services utilized by inmates. This order addresses the needs of inmates with disabilities and advanced form of communication technologies and TRS.[43]

The FCC reaffirmed in this order their existing policy of strongly encouraging correctional facilities to provide inmates with communication disabilities access to TTYs, as well as equipment used for advanced forms of TRS, such as videophones and captioned telephones. Access to more advanced forms of TRS, including VRS, IP Relay, CTS, and IP CTS, may be necessary to ensure equally effective telephone services for these inmates. The FCC recognizes that many facilities have already begun providing access to alternative forms of TRS and strongly encourages other facilities to continue this trend.

h. Telephone Amplification Devices

Amplifiers are devices that make sounds louder and clearer for individuals who are hard-of-hearing who have some residual hearing and use their voice when using telephones to communicate with their family and friends. Inmates who have residual hearing may need to utilize a telephone with amplification devices to communicate with family and community to maintain ties as well as to communicate with an attorney outside of prison.

Telephones manufactured after January 1, 1989 must be hearing aid compatible. The Hearing Aid Compatibility Act of 1988 required that telephones located in workplace common areas and credit card operated telephones be compatible with hearing aids.[44]

Hearing aids operating in telecoil coupling mode avoid unwanted ambient noise by turning off the microphone and receiving only electromagnetic signal generated by telecoil-compatible telephones. There are several different ways a telephone can be amplified: a built-in volume control in the handset, an in-line amplifier that is attached to the telephone, or a telephone handset that has built-in amplification. Public telephones have a button to press or a sign explaining how to increase the volume. See **Exhibit J**.

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[40] 47 U.S.C. § 225(b)(1).
[41] 47 U.S.C. § 225(a)(3).
[42] *See* Report and Order and Further Notice of Proposed Rulemaking ¶ 21-27, *In re Telecommunications Relay Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 98-67 (March 6, 2000), available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-00-56A1.pdf.
[43] Rates for Interstate Inmate Calling Services, 47 CFR § 64, available at https://www.federalregister.gov/documents/2015/12/18/2015-31252/rates-for-interstate-inmate-calling-services.
[44] *Hearing Aid Compatibility for Wireline and Wireless Telephones*, FCC, https://www.fcc.gov/guides/hearing-aid-compatibility-wireline-and-wireless-telephones (last visited Oct. 28, 2016).

i. Captioned Telephone

Many deaf and hard-of-hearing persons who have intelligible speech and can read English use captioned telephone services. Plaintiff Williams wears a hearing aid; however, he still has difficulty hearing with the hearing aid. It is very difficult for Mr. Williams to communicate through a traditional telephone. He must ask the other caller to repeat himself frequently. The process is tedious. As a result, he is unable to communicate with family members effectively.[45] Mr. Williams may benefit from using captioned telephone.

A captioned telephone is a special telephone that has a built-in screen to display in text (captions) everything the other person on the call says. When an outgoing call is placed using a captioned telephone, the call is connected automatically to a Communication Assistant (CA) at the Captioned Telephone Service Provider Call Center. The CA, a specially trained operator, hears the person who is speaking. The CA repeats or re-voices what that person says and speech recognition technology automatically transcribes the CA's voice into text (captions), which is displayed on the captioned telephone.

There are various types of captioned telephones that are available through Ultratec, Inc.[46] and CaptionCall[47] as listed in **Exhibit K**. The captioned telephone service is free to the user because it is reimbursed by the FCC for providing the service to individuals who are deaf or hard-of-hearing that prefer to speak for themselves. The funds for this service are provided by a surcharge that all United States residents pay on their monthly phone bills for telecommunications relay services. These manufacturers produce various types of captioned telephone such as Analog VCO Phone, Analog (one line), Analog two-line CapTel, Analog/Internet CaptionCall, Internet WebCapTel with any phone and Internet Mobile CapTel. These types of captioned telephones can be connected to a prison telephone network which allows calls to be recorded. Further, they can be provided at no or low cost.

B. Access to Notification of Events and Announcements

When MDOC relies solely on audible notifications or alerts – whether to notify inmates of scheduled activities or meals, important announcements, or emergencies – it denies access and protection to deaf and hard-of-hearing inmates. As a result, deaf and hard-of-hearing inmates are at greater risk of death or injury due to fire and other emergencies, particularly when they are asleep or otherwise isolated from others. Further, the deaf and hard-of-hearing may not be aware of when certain activities or programs start to the same extent as hearing inmates and may miss their opportunity to participate in and benefit from such. Accordingly, a deaf and hard-of-hearing inmate would be denied equal access to prison programs and activities.

People who are deaf and hard-of-hearing face unique challenges in an emergency. Their ability to detect a fire or escape its effects may be hindered by their hearing loss. As a result, these individuals are at a greater risk of death or injury due to fire. They must rely entirely on

[45] McBride Complaint 15 ¶ 40.
[46] Ultratec, Inc., http://www.ultratec.com (last visited Oct. 28, 2016).
[47] *CaptionCall Mobile*, CaptionCall, https://www.captioncall.com/captioncall (last visited Oct. 28, 2016).

visual clues to understand messages being sent through the utilization of visual alarms. There are many types of notification systems that can assist deaf individuals.

Certain auxiliary aids and notification systems should be implemented in MDOC and its facilities so that deaf and hard-of-hearing inmates are not denied equal access to notifications and announcements and thereby programs and activities.

a. In-Cell Visual Alarms

Certain standing and portable visual alarms shine brightly enough to wake up a sleeping deaf individual. Portable visual alarms can be easily moved from cell to cell. Moreover, a prison can purchase a battery-powered unit or shorten the unit's power cord to address security and inmate safety concerns.

A portable visual alarm device with a 177-candela visually flashes at an average rate of 60 times a minute and has a 90-decible audible signal. This device meets the ADA requirements; however, if inmates have low frequency hearing loss, a modified Loudenlow Low Frequency smoke detector is needed. Research has shown these visual alarms are significantly more effective at waking individuals with mild to moderate hearing loss. The flash rate of strobes used in emergency signaling applications is an important factor because if the rate is too high, it may trigger epileptic seizures among individuals who are sensitive to rapid bursts of light.

From reviewing the photos of MDOC facilities that MDOC produced in this case and that I received, it appears that there is no visual alarm in the cells. Plaintiffs and similarly situated deaf and hard-of-hearing inmates require a standing or portable visual alarm bright enough to wake them from sleep for their safety and to ensure equal access to prison services. Furthermore, Ms. McBride was placed in Women's Huron Valley Correctional Facility's Calhoun B unit, where her request for special accommodation including lights and TTY were not provided.

Based on my review of the photos, visual smoke alarms in MDOC and its Robert G. Cotton, Macomb, and Women's Huron Valley Correctional Facilities are currently placed in the common areas. Deaf inmates may not be able to see the strobe light from their cells, especially when there is a small window and their doors may be so far that the light may be out of sight. Also, the light may not be bright enough to be seen during daylight.

WHV lacks an effective system of notification lights or signs for notifying Ms. McBride and other deaf and hard-of-hearing inmates. WHV has a single, red notification light outside the officer's station at the facility's Gladwin Housing Unit B. This light is sometimes used to announce inmate "count time" – officers sometimes turn the light on when count starts and off when count is over. Ms. McBride cannot see the signs or the single, red notification light in her cell or in the television room.

WHV has issued pagers to approximately six deaf and hard-of-hearing inmates, including Ms. McBride, to help the facility notify these inmates of alarms and announcements. WHV

apparently has used the pages sporadically; thus this communication system may not yet be effective.[48]

In addition, Mr. Wittman could not hear alarms or announcements at DRF when his implant was broken in 2012 (for approximately four months) and 2013 (for approximately three months). Furthermore, Mr. Wittman removes the implant when he goes to sleep, which makes him unable to hear emergency announcements without a visual alarm.

b. Wireless Notification Systems with Shakers

Wireless notification systems use sound monitors that can detect sounds such as triggered audible alarms, door knocking, and phones ringing. When the device detects these sounds, it alerts deaf users with a bright visual flasher and a powerful bed shaker.

The system consists of a master unit and a bed shaker. The master unit consists of an alarm clock with a large display, a flasher with 6 LED lights, and a motion sensor. The face of the master unit has large bright icons to note which event has activated the alarm. Wireless notification systems are available in the models listed in **Exhibit L**.

MDOC should install wireless notification systems in addition to or in lieu of in-cell visual alarms in prison facilities since these systems are able to alert deaf inmates who are in their cells to both emergency and non-emergency situations.

c. Visual Paging Systems

Visual paging systems relay important messages to deaf individuals. These systems use digital signage networks composed of CRT monitors, LCD flat screen panels, plasma displays, split flap boards, high-definition TVs, or LEDs. They are available in wireless and wired formats. Ideally, these devices are connected throughout the correctional center via existing TV monitors.

Examples of Visual Paging System
San Francisco Airport and Bainbridge Island Ferry

[48] See, e.g., Slagter 30(b)(6) Deposition. April 11, 2016, 117:3-118:10.

Plaintiffs require a visual paging system to alert them of audible announcements of all kinds. The Defendants do not provide Plaintiffs with access to this service, thus denying them effective communication and equal access. Further, deaf and hard-of-hearing inmates that have missed activities and programs available to other inmates because they could not hear announcements have been discriminated against and denied equal access. Finally, without visual and physical emergency notification systems, all deaf and hard-of-hearing inmates are at a greater risk of injury or harm due to the Defendants' lack of accommodations.

MDOC must ensure announcements are functionally equivalent and deploy visual paging systems to provide visual information available to inmates when audible announcements are broadcasted through the utilization of existing monitors throughout MDOC facilities. The existing TV monitors should be able to be switched from HDMI or VGA setting to display notices from a computer in the Control Room. MDOC can program and store a number of generic alerting messages and notices in the computer and broadcast the appropriate visual message.

d. Closed Captioning Television

Closed captioning allows persons who are deaf and hard-of-hearing to have access to television programming by displaying the audio portion of a television program as text on the television screen. All analog and digital television receivers with screens 13 inches or larger sold or manufactured in the United States must contain built-in decoder circuitry to display closed captioning. The closed captioning decoder receives signals from the broadcaster or program. This feature can be turned off and on using a remote control or the menu button on the television.

Closed captioning should at all times be on all TV monitors in MDOC common areas to allow inmates who are deaf or hard-of-hearing the opportunity to view the program of their choice or to participate in the program that is taking place.

C. Access to Education, Religious Services, Healthcare, Rehabilitative Programs, Disciplinary Hearings, and Employment Opportunities

Because MDOC limits access to or denies the use of sign language interpreting services, deaf and hard-of-hearing inmates such as Plaintiffs do not have the same opportunity as hearing inmates to participate in and participate in and enjoy the benefits of education, healthcare, rehabilitative programs, religious services, disciplinary proceedings, and employment opportunities. This is due to the fact that such deaf and hard-of-hearing inmates require sign language interpreting services – such as qualified interpreters and VRI – to communicate as effectively as hearing inmates in such programs, proceedings, and opportunities. This is a denial of effective communication and equal access.

Policy changes should be implemented within MDOC to permit better access, including emergency access, to interpreting services so that deaf and hard-of-hearing inmates are not denied effective communication and equal access in programs, hearings, and employment opportunities. Below is some background information on these remedies and how such remedies could be implemented practically and safely.

MDOC must strive to make its programs, services, activities, and facilities accessible to inmates with disabilities through the provision of auxiliary aids and services. *Auxiliary aids and services* include: qualified interpreters on-site or through video remote interpreting (VRI) services; note takers; real-time computer-aided transcription services; written materials; exchange of written notes; telephone handset amplifiers; assistive listening devices; assistive listening systems; telephones compatible with hearing aids; closed caption decoders; open and closed captioning, including real-time captioning; voice, text, and video-based telecommunications products and systems, including text telephones (TTYs), videophones, and captioned telephones, or equally effective telecommunications devices; videotext displays; accessible electronic and information technology; or other effective methods of making aurally delivered information available to individuals who are deaf or hard-of-hearing.[49]

a. Qualified Sign Language Interpreters

Qualified sign language interpreters provide real-time translations in deaf individuals' primary language (ASL) and have been available for hire for decades. Because interpreter quality varies widely, it is important to use interpreters that are certified by the National Registry of Interpreters for the Deaf ("RID").[50] Sign language interpreting service should be processed through several local contracted Sign Language Interpreting Services Agencies. See **Exhibit M**. Effective July 7, 2014, new requirements take effect for businesses and organizations that hire sign language interpreters in Michigan, creating different levels of qualifications for specific types of communication.

Certified and qualified interpreters adhere to a code of professional conduct and are able to interpret effectively, accurately, and impartially using any necessary specialized vocabulary.[51] The use of non-certified and unqualified interpreters can result in inadequate communication and miscommunication. Potential conflicts of interest concerns and privacy concerns also must be considered when selecting an interpreter, and interpreters who raise either concern – including interpreters that are fellow inmates in a prison setting – should only be used as a last resort. Interpreter-assisted communications are the only form of in-person communication that allows both the hearing and deaf individuals involved in a conversation to communicate as they would normally. Plaintiffs, as well as all other deaf and hard-of-hearing inmates in the custody of MDOC, require this service to participate, for instance, in prison classes, religious services, medical appointments, intake, orientation, and grievance interviews in a manner comparable to their hearing peers.

MDOC's failure to provide these services despite Plaintiffs' timely requests was a denial of effective communication and equal access. Ms. McBride had repeatedly requested sign language interpreting services and was not provided them for MDOC's services, programs, and activities. For instance, according to a grievance filed by Ms. McBride, she has requested sign

[49] Americans with Disabilities Act Title II Regulations, available at https://www.ada.gov/regs2010/titleII_2010/titleII_2010_regulations.htm (last visited Oct. 28, 2016).
[50] Registry of Interpreters for the Deaf, Inc. www.rid.org (last visited Oct. 28, 2016).
[51] *NAD-RID Code of Professional Conduct*, Registry of Interpreters for the Deaf, http://www.rid.org/ethics/code-of-professional-conduct/ (last visited Oct. 28, 2016).

language interpreters for her medical appointments, which has led her appointments to be rescheduled more than six times. As another example, Mr. Wittman's requests for an interpreter during medical visits have been repeatedly denied, and he was, therefore, unable to communicate effectively with medical professionals.

MDOC also entered a statewide contractual agreement with Linguistica International from August 1, 2014 that was set to expires on July 31, 2017; however, MDOC terminated the contract on June 1, 2015 and those services are procured through the facilities themselves.[52] Consequently, each individual facility has to retain their own vendors to provide sign language interpreting services and some did not begin doing so until substantially after the cancellation of the Linguistica contract, depriving deaf and hard-of-hearing prisoners of equal access while interpreters were unavailable.

b. Video Remote Interpreting Services

VRI uses high-speed internet services to allow deaf and hearing individuals in the same physical location to communicate without an in-person interpreter. Instead of an in-person interpreter, VRI employs an off-site interpreter to provide translation services via video monitor. Like VRS, VRI has been widely available in the U.S. since at least the mid-2000s.

Video Remote Interpreting (VRI)

This service should be utilized when an interpreter cannot be physically present to interpret for individuals who are at the same physical location. It is ideal for unplanned medical communications, brief interactions, and emergencies. For this reason, VRI is commonly used in locations such as hospitals, doctors' offices, mental health care settings, police stations, and other instances demanding near-immediate access to an interpreter.[53] MDOC can contract with a vendor such as Purple Communications VRI Services[54] or ZVRS Stratus Interpreting Services[55] to enable VRI communications.

VRI is the only form of in-person communication that allows hearing and deaf individuals to communicate without an in-person interpreter in their preferred manner. Since an

[52] See, e.g., Slagter 30(b)(6) Deposition, April 11, 2016, 87:23-88:4 and Individual Deposition, October 13, 2016, 11:20-11:22.
[53] *See, e.g., Position Statement: VRI Services in Hospitals* National Association of the Deaf, http://nad.org/issues/technology/vri/position-statement-hospitals (last visited Oct. 28, 2016).
[54] *VRI*, Purple Communications, http://www.purple.us/vri (last visited Oct. 28, 2016).
[55] Stratus Video, http://www.stratusvideo.com (last visited Oct. 28, 2016).

in-person interpreter cannot always be obtained in a timely manner, Plaintiffs and other similarly situated deaf and hard-of-hearing inmates require access to VRI services to be able to communicate with hearing individuals during emergencies and other unexpected events in a manner comparable to hearing inmates.

MDOC previously had a VRI pilot program utilizing iPads at the Women's Huron Valley Correctional Facility, but this pilot program was terminated on July 1, 2015 and this accommodation is no longer provided.[56] According to Defendant Paul Slagter, "the vendor deployed cellular-based iPads as a workaround solution and the iPad would sit in front of the prisoner with an ASL interpreter in Utah." According to Mr. Slagter, this program is not moving forward, even though it had worked well for prisoners. MDOC's failure to provide Plaintiffs with access to VRI is therefore denying them effective communication and equal access to prison programs.

Further background and implementation details for video-related services is described in Section VI.A.e.

c. Communication Access Real-time Translation ("CART")

CART Services utilize machine stenographers (real-time captioners) who manually enter verbal communication via a steno machine into a software program. The program converts the steno signals to English instantly, which is then displayed on a personal computer or projection screen for a deaf or hard-of-hearing person to read.[57] The service is typically used by individuals who are hard-of-hearing, late-deafened, and those who lost their hearing after learning speech and rely solely on CART and captioning in group settings such as educational institutions, lectures, or at group meetings.

d. Audio Assistive Listening Device System ("ALDS")

ALDS enables persons with minimal hearing loss to participate in the proceedings of large group meetings and public forums. An audio system is connected to an induction loop that amplifies sounds and tones. Sound and tones are then broadcast to a personal hearing aid or Cochlear Implant equipped with acoustic coupling or a telecoil inductive switch, which are used by individuals who prefer audio enhancement. See **Exhibit N**.

D. Hearing Aids and Cochlear Implants

A hearing aid is an electronic, disposable battery-operated device that captures and makes sound louder, which can be helpful for most people with hearing loss. Hearing aids and Cochlear Implants are helpful for people with mild to moderate hearing loss; however, there are some for whom hearing aids either do not help or help insufficiently. For many people who have severe-to-profound sensorineural hearing loss ("nerve deafness") in both ears, even the most advanced and powerful aids may not adequately help.

[56] *See*, e.g., Slagter 30(b)(6) Deposition, April 11, 2016, 91:11-94:6.
[57] *Communication Access Realtime Translation*, National Association of the Deaf, http://nad.org/issues/technology/captioning/cart (last visited Oct. 28, 2016).

Cochlear implants are surgically implanted devices that send sound information via electrical stimulation directly to the auditory nerve, bypassing the damaged, missing or non-functioning sensory receptors (hair cells) located within the inner ear. Though they can create a range of sound, they do not restore or create normal hearing. Cochlear implants use both disposable and rechargeable batteries. See **Exhibit O**.

Disposable batteries typically last several days, depending on the power needs of each recipient's hearing aid device. Generally, in noisy environments the sound processor requires more battery power and may drain much faster so that batteries may need to be changed more frequently.

Mr. Williams has, and utilizes, a hearing aid. On one occasion, Mr. Williams was not allowed the use of his hearing aid during a misconduct hearing.[58] Consequently, as a result of this proceeding during which he was unable to hear or communicate, Mr. Williams was forced to serve 40 days in solitary confinement, also without being permitted access to his hearing aid. Further, MDOC did not provide him batteries for his sound enhancement device. In addition, Mr. Wittman utilizes a cochlear implant and MDOC failed to have his cochlear implant repaired within a reasonable amount of time. MDOC must provide inmates who utilize hearing aids or cochlear implants with access to disposable batteries as well as chargers and accessories for recharging batteries. Back-up rechargers and batteries must be available at MDOC for inmates who may request them.

E. Staff Training Regarding Rehabilitation Act of 1973 Requirements

As confirmed in Mr. Craig Czinder's deposition testimony on behalf of MDOC, MDOC does not provide or offer MDOC-wide training on the Americans with Disabilities Act (ADA) or accommodations for deaf and hard-of-hearing prisoners.[59] MDOC should implement and offer staff training on Section 504 of the Rehabilitation Act of 1973, as amended, and the ADA, as amended, and what they require in regards to the needs of deaf and hard-of-hearing inmates and all other inmates with disabilities in order to appropriately inform staff regarding accommodations for deaf and hard-of-hearing inmates. Once this training is implemented, MDOC should adhere to its own policy requiring a training plan for its staff and require comprehensive sensitivity training for its staff. The training should include, but not be limited to, effective communication and interaction with individuals who are deaf and hard-of-hearing as well as emerging telecommunications technology. Please see **Exhibit P** for a suggested training outline.

F. Procedures for Requesting ADA Accommodations

It is my understanding that there is no written or defined MDOC procedure for inmates to seek accommodations under the ADA.[60] To address inmates' attempts to obtain

[58] McBride v. MDOC Class Action Complaint 5, ¶ 7.
[59] *See*, *e.g.*, Craig Czinder 30(b)(6) Deposition April 13, 2016, 26:9-26:22 & October 12, 2016, 9:16-11:4.
[60] See, e.g., Slagter 30(b)(6) Deposition. April 11, 2016, 96:22-97:12.

accommodations, a simpler procedure specific to the ADA such as "Inmate Reasonable Accommodation Request Form" should be provided.

A procedure for requesting reasonable accommodation could be published in the MDOC Handbook, and an ADA Compliance Officer as well as assigned Local Correctional Disability Coordinators for Inmates at each facility should be identified to inform inmates of MDOC's commitment to comply with the ADA. An inmate seeking an accommodation could complete the Inmate Reasonable Accommodation Request Form. On the form, the inmate could describe the specific accommodation needed and the specific action the inmate wants MDOC to take to accommodate his or her disability and allow him or her to participate in programs, services, and activities. The completed form would need to be fully processed to ensure that the request for reasonable accommodation is properly evaluated. This form could be filed separately from the inmate's file to avoid retaliation for the requested accommodation. These changes would permit MDOC to respond to the individualized needs of particular deaf and hard-of-hearing inmates.

VII. CONCLUSION AND RECOMMENDATIONS

MDOC failed to provide Plaintiffs Mary Ann McBride, Brian Stanley Wittman, and Ralph Williams, and other deaf and hard-of-hearing inmates with the means to communicate effectively and access MDOC's programs, services, activities, and facilities. In particular, the Defendants should provide the following accommodations to ensure effective communication and equal access for said Plaintiffs and all other deaf and hard-of-hearing inmates in MDOC's custody: (1) videophone technology; (2) qualified sign language interpreters available in person, or remotely via VRI, and upon request; (3) VRS; (4) Captioned Telephone systems; (5) CART services and/or ALDS (6) in-cell visual alarms and/or wireless notification systems; (7) bed shakers; and (8) visual paging systems.

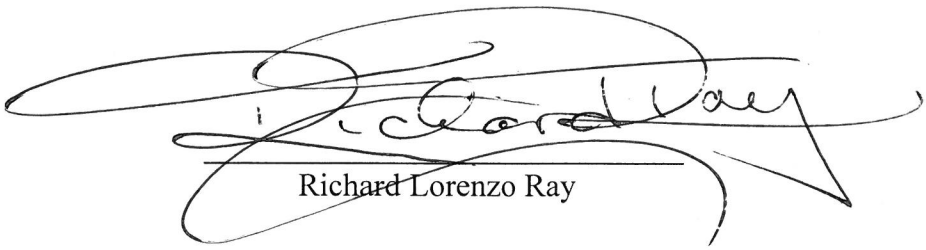
With today's expanding technology, individuals have many communication options. People who are deaf, deaf-blind, or hard-of-hearing and individuals with a speech disability are following these trends and are rapidly migrating to more advanced telecommunications methods, for instance, for peer-to-peer communications, video remote interpreting services, and videophone conferencing. Internet-based equipment includes, but is not limited to, wireless devices, videophones/videocams, computers, and tablets. Due to technological changes in the industry and expansion of videophone systems, implementation of technology, programs, and services to meet their communication needs, MDOC should be kept abreast to ensure communication accessibility. By utilizing current device interfaces with network connections, an individual is able to experience video communication that is more functionally equivalent to that enjoyed by people who can hear and speak.

MDOC Bureau of Health Services' Medical Service Advisory Committee developed and issued Guidelines for Hearing Impaired Accommodations and Classification effective April 27, 2016; however, they fail to provide a clear identification of deaf and hard-of-hearing inmates and their communication needs. As indicated in the Guidelines, the Medical Practitioner will evaluate all prisoners for hearing impairment during intake, as needed, and order special accommodations for prisoners with a documented hearing impairment. These Guidelines should not be relied on as an exclusive determinant of the type of accommodation needed for inmates.

The expressed choice of the individual with the disability, who is in the best position to know his or her needs, with the support of a qualified ADA Compliance Officer and assigned Local Correctional Disability Coordinators, should be given primary consideration in determining which communication aid to provide to ensure equal access to MDOC and its facilities, programs, activities, and services for all deaf and hard-of-hearing prisoners.[61]

[61] *Model Policy for Law Enforcement on Communicating with People Who Are Deaf or Hard of Hearing*, Department of Justice (Jan. 2006), http://www.ada.gov/lawenfmodpolicy.pdf.

Date: October 28, 2016



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